

## Remarks

Applicant respectfully requests that this Amendment After Final Action be admitted under 37 C.F.R. § 1.116.

Applicant submits that this Amendment presents claims in better form for consideration on appeal. Furthermore, applicant believes that consideration of this Amendment could lead to favorable action that would remove one or more issues for appeal.

Claims 10 and 24 have been amended. No claims have been canceled. Therefore, claims 10-16, 24 and 26-31 are now presented for examination.

Claims 10-16, 24 and 26-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Umen et al. (U.S. Patent No. 6,854,086) in view of Shoup et al. (U.S. Patent No. 7,076,502). Applicant submits that the present claims are patentable over Umen in view of Shoup.

Umen discloses a document production system for preparing documents and managing a database of information pertaining to investigational studies of medical products. See Umen at Abstract. Umen further discloses a data management user interface (DMUI) that provides section headings that may be included in the document templates for identifying various sections of each document. The DMUI provides a template selection menu that allows a user to select a document template. For example, the user may select an FDA report template from the menu. See Umen at col. 17 ll. 24-55.

Shoup discloses a record management system that generates a layout mapping. The layout engine builds the layout mapping in a layout mapping storage unit by utilizing

retrieved formatting information and the record structure foundation formed by a query map and master table index. See Shoup at col. 16 ll. 32-39.

Independent claim 10 of the present application recites:

A method of formatting documents comprising:  
receiving a data stream in which each data record therein is associated with a layout identifier indicating a type of data included within a data record at a first computer;  
associating a first layout identifier with a first format region defining a first area on a document page;  
associating a second layout identifier with a second format region defining a second area on the document page;  
receiving layout parameters including formatting instructions relating to the presentation of data records in a document and specifying fixed data to be included in a format region each time a particular layout identifier is encountered, wherein a first set of layout parameters correspond to the first format region and controls placement of each data record within the first format region on the document page and a second set of layout parameters correspond to the second format region and controls placement of each data record within the second format region on the document page;  
formatting each data record within a corresponding format region at a second computer; and  
dynamically creating the document by applying the first set of layout parameters corresponding to the first layout identifier to each data record associated with the first layout identifier and applying the second set of layout parameters corresponding to the second layout identifier to each data record associated with second layout identifier.

Applicant submits that neither Umen nor Shoup disclose or suggest *associating a first layout identifier with a first format region defining a first area on a document page* and *associating a second layout identifier with a second format region defining a second area on the document page*. Specifically neither reference discloses, or reasonably suggests, associating a layout identifier with a respective format region that

defines an area on a page. In fact, the Examiner admits that Umen does not disclose such a feature. See Final Office Action at Page 4, line 22. However, Shoup has been cited as disclosing the feature. Id. at Page 5, ll. 1-6. Particularly, the Examiner relies on col. 16, ll. 30-67 and col. 17, ll. 45-67 of Shoup as disclosing the feature. Id.

The relied upon passages of Shoup disclose:

Once the formatting information is gathered, the record management system proceeds with the generation of a layout mapping in step 228 (FIG. 6(a)). The layout engine 212 builds the layout mapping in the layout mapping storage unit 205 by utilizing the retrieved formatting information and the record structure foundation formed by the query map 203 and master table index 204.

FIG. 6(c) illustrates a sequence of operations that may be performed by the record management system 200 in generating a layout mapping in step 228. For each axis in the desired view, the layout engine 212 identifies a set of groups of records in step 260. Each group of records includes records from the master table 202 that contain a specified dimension value from each of the dimensions being represented on the axis. Each group corresponds to a unique combination of dimension values, with each dimension value being from a different one of the axis' dimensions. However, each group is required to comprise at least one record that appears in the master table 202. A group may not consist of no records or be an empty set. Additionally, each record in each group includes at least one measure value that is associated with the measures being characterized in the desired view.

The layout engine 212 also designates cells in memory locations in the layout mapping storage unit 205 in step 261. The cells will later be filled with measure results for the measure being characterized in the view. The cells are designated to correspond to the groups of records on each axis. Each cell corresponds to a group on each axis.

FIG. 6(d) shows a more detailed view of a process that may be performed by the layout engine 212 in one embodiment of the present invention to identify the groups of record sets for each axis in step 260. First, the layout engine 212 selects an axis in step 262. Once an axis is selected, the layout engine 212 selects a combination of dimension values from the dimensions being represented on the axis. The combination consists of one dimension value from each of the dimensions on the axis. The layout engine 212, in step 264, processes the dimension index records for each of the dimension values in the combination.

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As described above, a multi-dimensional view may be required to have B dimensions on a vertical axis, D dimensions on a horizontal axis, and a measure being displayed in the view. In

such a case, the layout engine 212 generates a set of groups of records for the horizontal axis and a set of groups of records for the vertical axis. For each of these axes, the layout engine 212 selects dimension value combinations, processes sets of dimension index records for each combination, and performs group designation operations as described above with reference to FIG. 6(d).

When the horizontal axis is selected, each dimension index record being processed identifies a dimension value that is associated with one of the D dimensions. Further, each of the D dimensions is identified in one of the dimension index records being processed. The processing identifies the records that are listed in all of the dimension index records being processed.

The records that are identified by the processing in step 264 undergo a group designation operation (step 266) to determine if a group is to be created for the horizontal axis using these records. The records that include a measure value that is associated with the measure to be displayed are designated as a group of records for the horizontal axis. If a processing reveals that no record sets are listed in all of the dimension index records being compared or that no record resulting from the processing includes a measure value associated with the measures to be displayed, then no group is established for the combination of dimension values being compared. All of the groups in the horizontal axis are identified by repeating the above identified processing of index records and group designation operation for each permutation of dimension values for the different D dimensions. A set of groups of records is also identified for the vertical axis of the view. The set of groups for the vertical axis is identified by using the same operations as are performed to obtain the set of groups for the horizontal axis, with the B dimensions replacing the D dimensions.

Shoup at col. 16, ll. 30 - col. 17, ll. 16.

Applicant submits that nowhere in the above passages of Shoup relied on by the Examiner is there a reasonable suggestion of *associating a layout identifier with a respective format region, where the format region defines an area on a page*. Instead Shoup discloses generating a layout mapping for each axis in a desired view by identifying a set of groups of records, where each group of records includes records from a master table that contain a specified dimension value from each of the dimensions being represented on the axis. However, such a feature is not equivalent to *associating a layout identifier with a format region*.

Since both Umen and Shoup fail to disclose or suggest associating a first layout identifier with a first format region defining a first area on a document page and associating a second layout identifier with a second format region defining a second area on the document page, any combination of Umen and Shoup would also fail to disclose or suggest such a feature. Thus claim 10 and its dependent claims are patentable over Umen in view of Shoup.

Claim 24 includes limitations similar to those recited in claim 10. Thus, claim 24 and its dependent claims are patentable over Umen in view of Shoup for reasons similar to those discussed above with respect to claim 10.

Applicant submits that the rejections have been overcome, and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Please charge any shortage to Deposit Account No. 50-3669.

Respectfully submitted,  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP



Date: November 12, 2008

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